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China:
1977 Midyear Grain Outlook

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China: 1977 Midyear Grain Outlook

Central Intelligence Agency
Directorate of Intelligence

October 1977

Key Judgments

The total grain harvest in 1977 is unlikely to increase significantly over the 285 million metric tons produced in 1976, and may not keep pace with population growth for the second consecutive year.

Winter Wheat. Drought reduced the winter wheat harvest by an estimated 10 percent, or 4 million to 5 million tons.

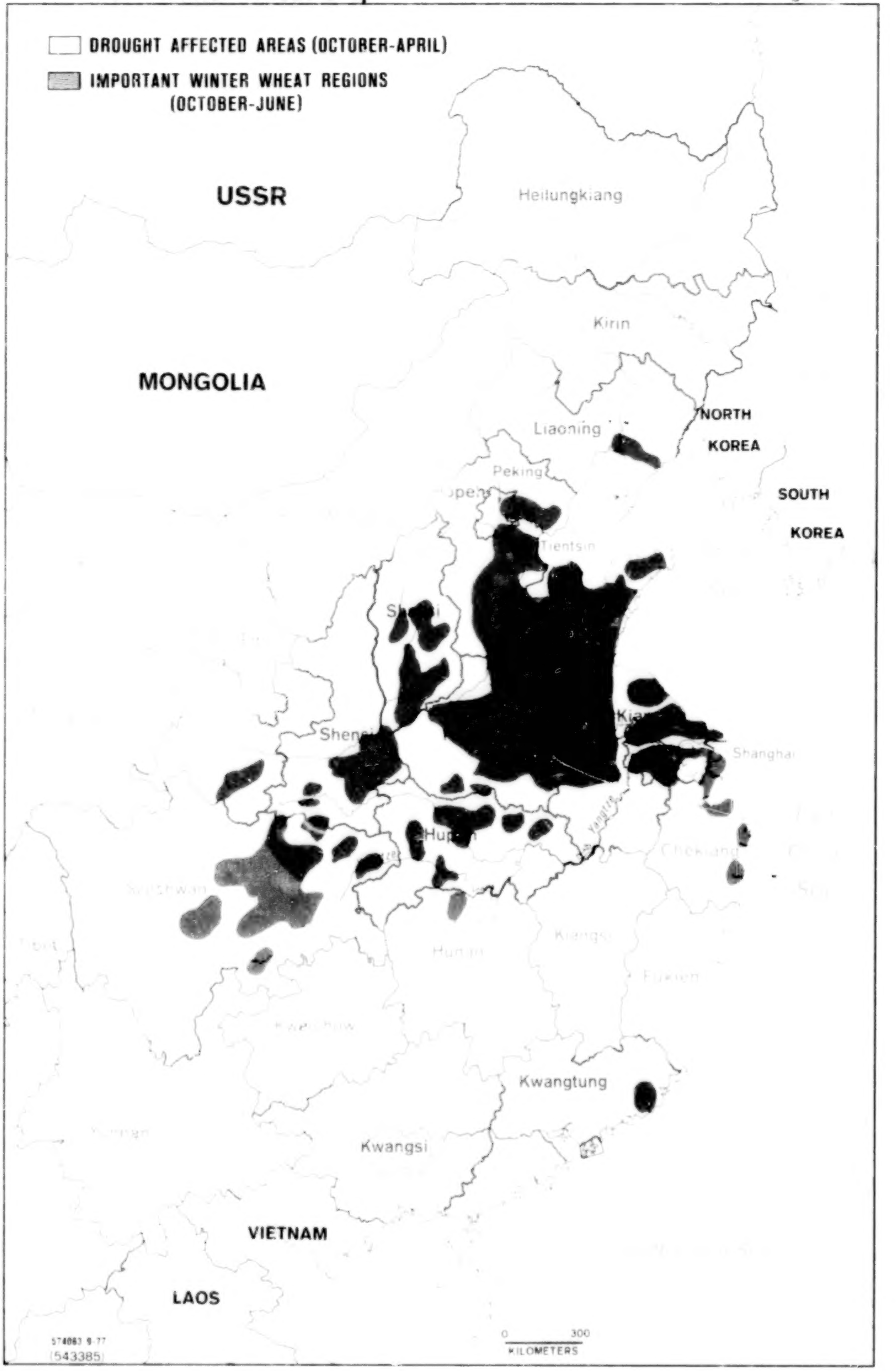
Early Rice. China claimed that early rice equaled last year's record. Still, the crop was a disappointment, as a combination of excessively dry weather in some growing areas and unusually heavy rains in other areas reduced output below expectations.

Outlook for the Fall Harvest. Normally accounting for approximately 65 percent of annual grain production (including soybeans and tubers), the fall harvest this year is unusually important. Prospects for significant increases in output of intermediate and late rice are good, but prospects for an increase in coarse grains are not good. The North China Plain, where about one-half of the coarse grain is grown, had six weeks of heavy rains, lasting from the end of June until August.

Grain Imports. The Chinese have countered the drought and engaged in some stock replenishing by buying 11.7 million tons of wheat for delivery over the 18-month period ending in mid-1978. About 7 million tons of wheat will be delivered in 1977, a record for wheat deliveries and close to the total grain delivery record (which included corn and wheat) of 7.6 million tons in 1973.

1977 Winter Wheat Crop

Figure 1



China: 1977 Midyear Grain Outlook

Introduction

So far this year China's agricultural output has been impaired by weather. General drought during the spring was followed by widespread wet conditions in the north over the summer. Winter wheat production fell, early rice held even, and China now hopes for a fruitful fall harvest to catch up on food production for 1977.

The Drought

China suffered a severe drought in late 1976 and early 1977; the press claimed it was the worst seen in China since before liberation. In the hardest hit areas grain rations were tightened, and population movements controlled. In most dry areas cadre, army personnel, and white collar workers were mobilized to carry water. Crops were, however, relatively unaffected on irrigated land, which has been greatly expanded over the past 15 years. The spring mobilization of all available labor, to carry water, also helped to mitigate the effects of the drought on unirrigated fields.

Winter Wheat

The drought is estimated to have reduced the winter wheat crop by about 10 percent, or 4 million to 5 million tons. Winter wheat, which accounts for 15 to 20 percent of total annual grain output, took the full brunt of the drought. The dry weather coincided with both the location and growing period of the crop (see figure 1).

In contrast to 1976, when above-average moisture during February promoted early greening of the wheat crop resulting in a record harvest, this year's snow cover and rain were well below normal in major wheat areas until the end of April. By then the plants on nonirrigated land had sustained irreversible damage.

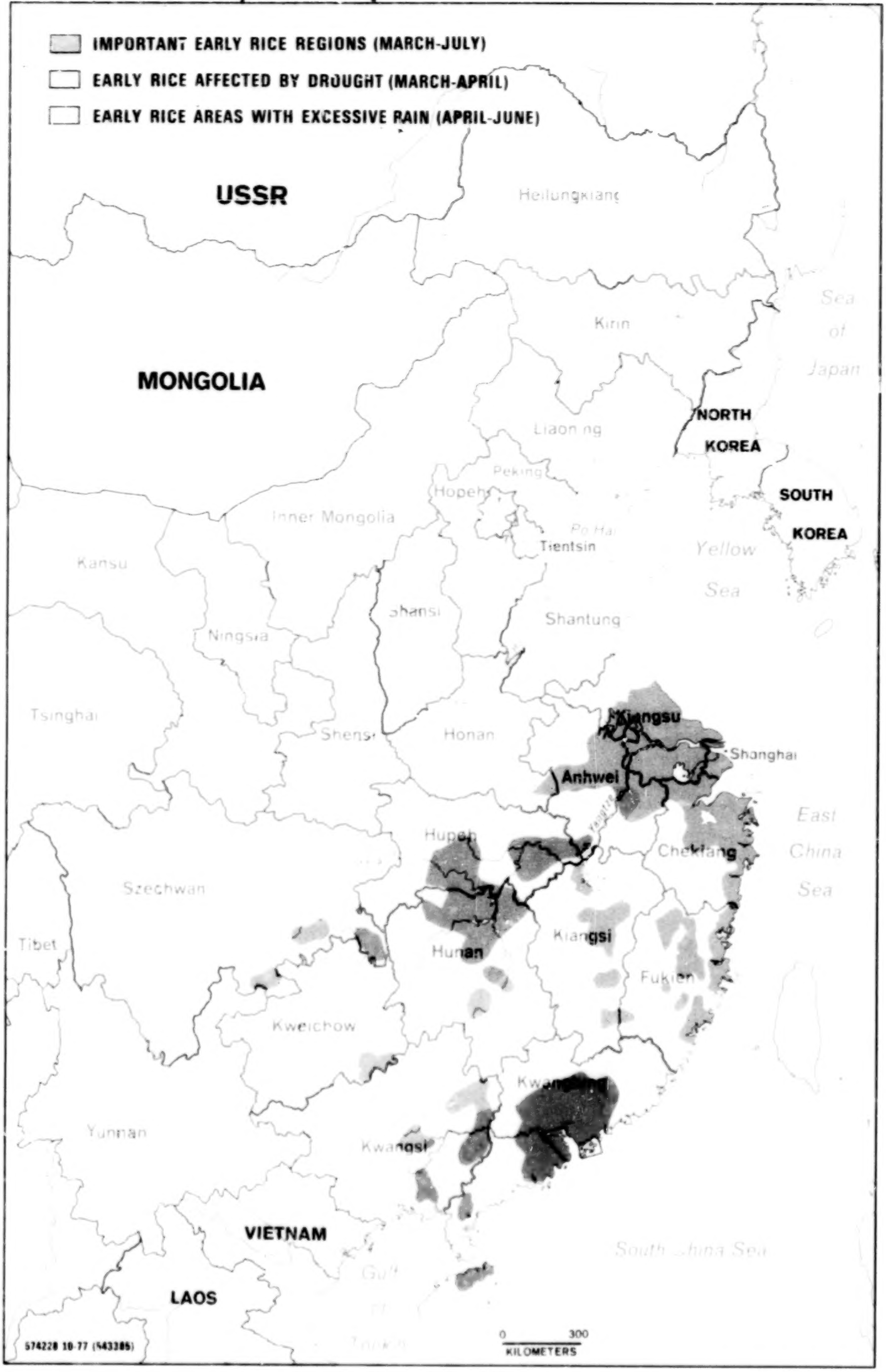
The wheat crop in the mountainous region that comprises parts of Kansu, Shensi, and Shansi incurred the most damage. These provinces account for 13 percent of total winter wheat acreage, and less than one-fourth of it is irrigated. Kansu admitted to the worst decline in production since Liberation. In Chingshui County, for example, 70 percent of the winter wheat crop was lost. (For production and sown area claims, see the appendix.)

The impact of the drought on wheat output differed in various parts of the North China Plain. Hopeh, Honan, and Shantung, which produce almost one-third of the winter wheat, were dry until the end of April. Northern Kiangsu and Anhwei began to receive normal moisture in March. Wheat stands were observed to be generally good in irrigated areas, which cover nearly one-half the Plain, but yields were down in nonirrigated fields.

Szechwan was relatively unaffected by the drought and claimed a record output of winter wheat. Dry weather in Hupeh and Hunan was of short duration compared with that of the provinces further north. Chekiang, Fukien, and Kwangtung, all minor producers of winter wheat, showed increased output due mainly to larger acreages.

Early Rice

National production of early rice is claimed to have equaled the record set in 1976. Even so, the crop was a disappointment to the Chinese. Sown area was claimed to be up by 66,000 hectares, but it would have been higher if it had not been for



1977 Early Rice Crop

Figure 2

the drought. Total sown area of early rice is about 13 million hectares. (See the appendix)

Early rice production in Kwangtung was claimed to have equaled that of 1976. This claim is, however, somewhat misleading because the 1976 crop was below that of 1975. The drought caused delays in planting the early rice crop. As a result, in some areas only one crop could be grown instead of the usual two; the total rice crop in those areas will be nearly halved.

In Hupeh and Hunan, although records in output were claimed, heavy late spring rains in the Tungting Lake region damaged some of the crop. The above provinces and Kiangsi all stressed the importance of bringing in bumper late rice harvests to compensate for the adversely affected early rice crops (see figure 2).

The coastal provinces of Chekiang and Fukien increased their early rice production over 1976 even though they had wet weather in June and a typhoon in July. Anhwei, Kiangsu, and Shanghai made no claims, but weather conditions were more moderate there. Szechwan's early rice crop did well, but the early rice crop is still very minor compared with the intermediate rice crop.

Fall Harvest Prospects

China is hoping for a bountiful fall harvest to make up for the disappointing early harvest. The fall harvest will probably be larger than last year's, but the prospects of a significant increase are mixed. The late harvest normally accounts for about 65 percent of total grain output, including soybeans and tubers. An increase of 3 percent over the 1976 late harvest is needed to produce the same annual total amount of grain as in 1976, which was unofficially claimed to be 285 million tons. An increase of approximately 5 percent in the late harvest is needed to produce an overall 1.5-percent increase in the food supply—a rate of increase needed to keep up with population growth

The biggest problem so far this fall is the North China Plain, where about half of the coarse grain is grown.* Abnormally wet conditions prevailed in the plain from the end of June until the first part of August. There have been reports of water logging with serious flooding occurring in the vicinity of Tientsin. The wet weather probably will cause some decline in coarse grain output in the area. These losses may be made up partially by planting quick-maturing catch crops.

The late rice harvest should be much improved over 1976, when transplanting was delayed by the tardy harvest of early rice. A wetter, colder than usual autumn in south China last year compounded the problems for late rice. This year late rice was transplanted earlier and all the major growing provinces have expressed hopes for a good harvest. Nevertheless some local wet weather has occurred. The most serious was in Shanghai, where to a two-day rain inundated the municipality in mid-August.

Intermedite rice should also do well. Growing conditions in Szechwan, the largest producer of single cropped rice, are much improved over 1976.

In the northeast the crop environment is good. Although the drought lingered in the Manchurian Plain during early summer, above-average rain has fallen since then. The rain has more than compensated for the early drought, and growing conditions of this normally dry region are much improved compared with last year. Spring wheat production appears to have gone up substantially over the mediocre harvest in 1976. (See the appendix.) Coarse grain production in northeast China also will probably do well.

Cotton

During July and August the Chinese press emphasized the importance of cotton production, but said nothing about how well the crop was doing. Because of the unfavorable weather this year, we expect a slight decrease in cotton production. This would be the third year of decline in the cotton crop since 1975, when an estimated 2.4 million tons of ginned cotton was produced.

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* Coarse grain (including corn, sorghum, and millet) and tubers normally account for about 35 percent of total grain output

Inpact on Trade

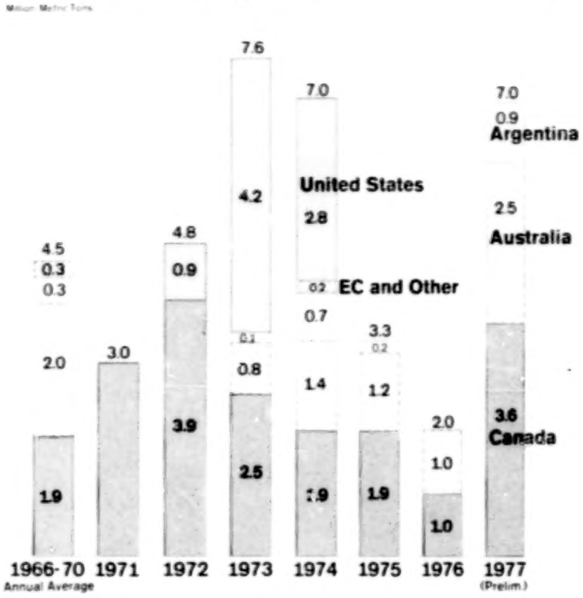
Since November 1976, China has purchased 11.7 million tons of wheat for delivery through July 1978. Seven million tons of wheat will be delivered during 1977—a record for wheat and close to the 1973 record of 7.6 million tons for total grain purchases, including corn. Deliveries of grain in 1975 and 1976 were 3.3 million and 2 million tons, respectively (see figure 3).

The Chinese have had to buy large quantities of wheat this year because of the reduced winter wheat harvest, which followed a poor fall harvest. In addition, the Chinese probably took advantage of low world prices to replenish grain stocks that were drawn down in 1975-76, when purchases were curbed to combat balance-of-payments problems.

Other agricultural imports also are up. Raw sugar purchases in 1977 are more than 1 million tons, which is double the average yearly purchase since 1970. Low world prices are the main reason for the jump in sugar imports. Soybean imports are up this year over the past two years, although they remain well below the peak levels of 1973-74. China has bought 390,000 tons under a single contract from Brazil. Cotton imports also will probably be up. Included in cotton imports is a purchase of 180,000 bales from the United States, the first Chinese purchase of US agricultural commodities since 1974.

Imports of Grain, by Source

Figure 3



APPENDIX

1977 Claims and Sown Area

Winter Wheat

Province	Claim	Area [1]	Source of Information [2]
National [3]	No claim	No claim	
Provincial total		26.12	
Anhwei [4]	No claim	1.87	FBIS, 6 Jul 76, G16.
Chekiang [4]	Above 1976	0.53	FBIS, 21 Jun 72, C3.
Fukien [4]	Bumper	0.26	FBIS, 13 Dec 76, G1.
Honan	Equals 1975	4.00	FBIS, 21 Mar 77, H1.
Hopeh	No claim	2.70	FBIS, 23 Mar 77, K1.
Hunan	No claim	0.60	FBIS, 17 Mar 72, B5, 26 Jun 72, B3. Ch'ang-sha, Hunan Provincial Service, 23 Jun 72.
Hupeh	No claim	1.80	FBIS, 6 Jan 76, H8; 10 Jul 75, E2.
Kansu	Worst decline ever	0.80	FBIS, 20 Apr 77, M3.
Kiangsi [4]	Above 1976	0.30	FBIS, 21 Feb 74, C12.
Kiangsu [4]	No claim	2.27	FBIS, 1 Jul 75, G2.
Kwangsi	Excellent	0.17	FBIS, 9 Jun 77, H3.
Kwangtung	Up 30 percent	0.46	FBIS, 9 Jun 77, H3.
Kweichow	No claim	0.52	Kwei-yang, Kweichow Provincial Service, 24 Nov 75.
Liaoning	No claim	0.10	FBIS, 18 Jul 75, L4.
Peking	Good	0.21	FBIS, 20 Nov 74, K4.
Shanghai [4]	Decreased	0.20	SWB 9 Jun 76, A5. FBIS, 11 Apr 74, G9.
Shansi	No claim	1.10	NCNA, 23 Jul 75.
Shantung	Bumper	4.00	FBIS, 17 Jun 77, G16.
Shensi	Relatively good	1.60	FBIS, 12 Mar 76, M4.
Sinkiang	Good	0.67	FBIS, 8 Nov 73, H4.
Szechwan	Record	1.67	FBIS, 20 Jul 73, E3; 11 Aug 77, J4.
Tibet [4]	No claim	0.05	FBIS, 13 Apr 77, J1.
Tientsin	No claim	0.20	FBIS, 21 Mar 75, K4.
Yunnan	No claim	0.04	FBIS, 11 Oct 73, E2.

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[1] Million hectares.

[2] The following abbreviations are used for source references: FBIS (Foreign Broadcast Information Service, *Daily Report, People's Republic of China*), SWB (British Broadcasting Corporation, *Summary of World Broadcasts*, Part 3, "The Far East, Weekly Economic Report"), and NCNA (New China News Agency).

[3] Although a national figure for sown area of winter wheat has not been released, a rough calculation can be made from partial information. Sixty-eight percent of total area sown to winter wheat is claimed "to come from the 11 provinces, cities, and autonomous regions" around the North China Plain. (FBIS, 21 Nov 74, E8) The sum of the sown areas of Anhwei, Honan, Hopei, Kansu, Kiangsu, Peking, Shansi, Shantung, Shensi, and Tientsin is 18.75 million hectares. Inner Mongolia is negligible. Therefore, 18.75 divided by 0.68 gives 27.57 million hectares.

[4] Including barley and naked barley.

Early Rice

Province	Claim	Area [1]	Source of Information
National	Equal to best ever	13.00	FBIS,[2] 18 Aug 77, E7.
Provincial total		12.54	
Anhwei	No claim	0.80	FBIS, 23 Mar 77, G2.
Chekiang	Over 1976	1.23	FBIS, 24 Aug 77, G6.
Fukien	Near record	0.80	FBIS, 16 May 77, G1.
Hunan	Record	2.06	FBIS, 15 Jul 77, H4.
Hupeh	Record	1.13	FBIS, 19 Aug 77, H6.
Kiangsi	Over 1976	1.71	FBIS, 2 Jul 76, G2.
Kiangsu	No claim	0.67	FBIS, 14 Aug 75, G7.
Kwangsi	No claim	1.40	Nan-ning, Kwangsi Chuang Autonomous Regional Service, 18 May 71.
Kwangtung	Equal 1976	2.11	FBIS, 19 Aug 77, H7.
Kweichow	No claim	0.06	FBIS, 15 Aug 73, E1.
Shanghai	No claim	0.15	FBIS, 10 Jun 76, E5.
Szechwan	Yield up 10 percent	0.36	FBIS, 11 Aug 77, J4.
Yunnan	No claim	0.06	FBIS, 28 Jun 74, J4.

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[1] Million Hectares.

[2] Foreign Broadcast Information Service, *Daily Report, People's Republic of China*.

Spring Wheat

Province	Claim	Area [1]	Source of Information [2]
National	No claim	No claim	
Provincial Total		4.37	
Heilungkiang	Bumper	1.80	FBIS, 18 Apr 77, L7.
Kirin	Up 20 percent over 1976	0.26	FBIS, 5 Aug 75, L2; 26 Apr 77, E20. HNA, 19 Aug 77, p.3.
Inner Mongolia	No claim	0.67	FBIS, 15 May 74, K2.
Kansu	No claim	0.80	FBIS, 20 Apr 77, M3. SWB, 21 Aug 74, A5.
Liaoning	No claim	0.07	FBIS, 18 July 75, L4.
Ningsia	No claim	0.10	FBIS, 26 Apr 77, E20.
Sinkiang	Good	0.67	FBIS, 8 Nov 73, H4; 1 Aug 75, M7.

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[1] Million Hectares.

[2] The following abbreviations were used for source references: FBIS (Foreign Broadcast Information Service, *Daily Report, People's Republic of China*), HNA (London, *News from Hsinhua News Agency, China*), and SWB (British Broadcasting Corporation, *Summary of World Broadcast*, Part 3,"The Far East, Weekly Economic Report").

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